

Clean Copy of Amended Claims

1¹(Amended). An isolated osteocalcin fragment derived from human urine, said fragment characterized in that at least one of the glutamic acids in the position 17, 21 and 24 of the amino acid sequence

Tyr-Leu-Tyr-Gln-Trp-Leu-Gly-Ala-Pro-Val-Pro-Tyr-Pro-Asp-Pro-Leu-
17 6 7
Glu-Pro-Arg-Arg-21 24 30
Glu-Val-Cys-Glu-Leu-Asn-Pro-Asp-Cys-Asp-Glu-Leu-
Ala-Asp-His-Ile-Gly-Phe-Gln-Glu-Ala-Tyr-Arg-Arg-Phe-Tyr-Gly-Pro-
Val (SEQ ID NO:2)
is gamma-carboxylated.

7 (Amended). The immunoassay according to claim 6 characterized by employing monoclonal antibodies or recombinant antibody fragments specific to epitopes that have been identified on the gamma-carboxylated fragment of osteocalcin, wherein said fragment spans either

i) from the amino acid in position 7 to the amino acid in position 30, or
ii) from the amino acid in position 6 to the amino acid in position 30 of the amino acid sequence described in SEQ ID NO:2, and that all three glutamic acids in the positions 17, 21 and 24 of said sequence are gamma-carboxylated.